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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/818,299

03/26/2001

Martin Baatz

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03/22/2004

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EXAMINER

COUSO, YON JUNG

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 03/22/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,299

Applicant(s)

BAATZ ET AL.

Examiner

Yon Couso

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,8,13,14,22-28,30,31 and 35-37 is/are rejected.
7) ☒ Claim(s) 2-7,9-12,15-21,29,32-34 and 38-40 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 26 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/023,670.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 8, 13, 14, 22-28, 30, 31, 35-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Tilton "Hybrid Image Segmentation for Earth Remote Sensing Data Analysis".

As per claim 1, Tilton teaches a method for segmentation of a digital picture consisting of a multiplicity of single picture elements comprising the following steps: (a) determining if one of one and several features relating to contiguous picture objects comprising picture elements and picture segments are conforming or not conforming based on a specific homogeneity criterion by means of referencing a predetermined tolerance for each feature as a termination criterion, within which feature values relating to the contiguous picture objects in question may differ (page 704, column 2, lines 4-37); (b) if one of one feature and several features relating to the contiguous picture objects are determined to be conforming then merging the conforming picture objects (page 704, column 1, lines 38-49; and (c) repeating the resulting segmentation until the resulting segmentation converges in a stable or approximately stable condition in which no further contiguous picture objects are determined to be conforming (page 704, column 2, lines 35-42).

As per claim 8, Tilton teaches (d) determining if a new tolerance is selected and (e) if a new tolerance is selected then repeating the method for segmentation and returning to step (a) to thereby form a hierarchical structure of picture objects having different hierarchy planes (page 704, column 2, lines 8-9 and lines 35-42).

As per claim 13, Tilton teaches (f) determining if one of one and several features of already merged picture objects are still conforming or not still conforming based on the specific homogeneity criterion, and (g) if one of one feature and several features of the already merged picture objects are determined not to be still conforming then excluding the not still conforming picture objects (page 705, column 1, lines 25-28 and column 2, lines 4-39).

As per claim 14, Tilton teaches that the steps (f) and (g) are performed in addition to steps (a) and (b) in an arbitrary order or in parallel (page 705, column 1, lines 25-28 and column 2, lines 4-39 would reads on arbitrary order).

As per claim 22, Tilton teaches that the merging is performed only if a feature difference defined in the homogeneity criterion for one of the picture objects is smallest in comparison with the contiguous picture objects and contained within the predetermined tolerance (page 704, column 2, lines 38-41).

As per claim 23, Tilton teaches that the merging is performed only if for two picture objects a feature difference defined in the homogeneity criterion is smallest in comparison with the other contiguous picture objects and is contained within the predetermined tolerance (page 704, column 2, lines 38-41).

As per claim 24, Tilton teaches that the merging is performed only if a feature difference defined in the homogeneity criterion is smallest in comparison with all other possible combinations of picture objects and is contained within the predetermined tolerance (page 704, column 2, lines 38-41).

As per claim 25, Tilton teaches that the picture objects are processed in a pseudo-stochastic order (page 704, column 2, line 40).

As per claim 26, Tilton teaches that the picture objects are processed in an order which ensures maximal possible distance from already processed picture objects (page 704, column 2, lines 4-34).

As per claim 27, Tilton teaches that several picture objects are processed simultaneously (page 704, column 2, lines 25-27).

As per claim 28, Tilton teaches that the digital picture comprises a plurality of single channels having a different information content and picture objects are combined only if the homogeneity criterion referred to is satisfied for each one of the channels (page 704, column 2, lines 38-41).

As per claim 30, Tilton teaches that the boundary picture objects are not referred to for determination of properties of large picture objects (page 705, column 1, lines 19-28).

As per claim 31, Tilton teaches that the homogeneity criterion comprises texture features (page 703, column 1, lines 1-3).

As per claim 35, Tilton teaches a method for segmentation of a digital picture consisting of a multiplicity of single picture elements comprising the following steps: (a)

determining if one of one and several features relating to contiguous picture objects comprising picture elements and picture segments are conforming or not conforming based on a specific homogeneity criterion by means of determining a modification of the contiguous picture objects in question as a continuation criterion which leads to a minimum increase in a defined value for the complexity of an entire structure consisting of all picture objects (page 704, column 2, lines 4-37); (b) if one of one feature and several features relating to the contiguous picture objects are determined to be conforming then combining the conforming picture objects (page 704, column 1, lines 38-49); and (c) repeating the resulting segmentation until the resulting segmentation converges in a stable or approximately stable condition in which no further contiguous picture objects are determined to be conforming (page 704, column 2, lines 35-42).

As per claim 36, Tilton teaches that the means of repeating the resulting segmentation a hierarchical structure is formed having several hierarchical planes which are present in a locally different hierarchical depth (page 704, column 2, lines 8-9 and lines 35-42).

As per claim 37, Tilton teaches that a highest hierarchical plane consists of a single picture object containing all picture elements (page 704, column 2, lines 35-42).

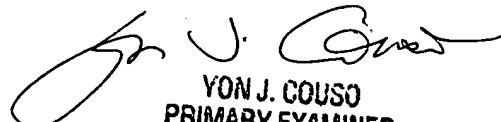
2. Claims 2-7, 9-12, 15-21, 29, 32-34, 38-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Merickel et al, Chang et al, Yair, Price et al, Pawlicki et al, and Corset are also cited.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (703) 305-4779. The examiner can normally be reached on 8:30 am –5:00 pm from Monday to Friday

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.



YON J. COUSO
PRIMARY EXAMINER

Yjc

March 18, 2004